

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

21 1. (currently amended): An ink jet recording apparatus comprising an ink jet recording head for receiving supply of ink from an ink cartridge provided with storage means storing data for determining compatibility of a recording apparatus, and control means for determining compatibility of ink based on the data in the storage means and executing print operation, wherein

if compatibility to an ink cartridge cannot be confirmed when the ink cartridge is mounted, the recording apparatus generates a caution and always awaits input of an instruction by a user before the recording apparatus executes a subsequent print operation, after said caution is generated.

2. (original): The ink jet recording apparatus as claimed in claim 1, wherein the caution is generated each time a predetermined amount is printed.

3. (original): The ink jet recording apparatus as claimed in claim 1, wherein if a cartridge replacement instruction is entered after the compatibility is confirmed, the ink cartridge is moved to an ink cartridge replacement position.

C1
4. (original): An ink jet recording apparatus comprising an ink jet recording head for receiving supply of ink from an ink cartridge provided with storage means storing data, and control means for driving the recording head based on the data in the storage means, the recording apparatus further comprising:

default data storage means storing default data for controlling the recording head; and
print control means, which reads the data from the storage means of the ink cartridge to determine compatibility when the ink cartridge is mounted, which, if compatible, controls the ink jet recording head based on the data in the storage means of the ink cartridge, and which, if incompatible, executes print operation based on the data in the default data storage means.

5. (original): The ink jet recording apparatus as claimed in claim 4, further comprising rewritable update data storage means, wherein the print control means is provided, which reads the data from the storage means of the ink cartridge to determine the compatibility when the ink cartridge is mounted, which, if compatible, updates data in the update data storage means based on the data in the storage means of the ink cartridge and controls the ink jet recording head based on the data in the storage means of the ink cartridge, and which, if incompatible, executes the print operation based on the data in the update data storage means or the data in the default data storage means.

6. (previously presented): An ink jet recording apparatus comprising an ink jet recording head for receiving supply of ink from an ink cartridge provided with storage means storing data for determining compatibility to a recording apparatus, and control means for determining

compatibility of ink based on the data in the storage means and executing print operation,
comprising:

optimum drive condition storage means storing an optimum drive condition for an ink cartridge, compatibility of which can be confirmed;

setup range storage means storing normal setup range data for comparison with ink information in the storage means of an ink cartridge;

general-purpose drive condition storage means storing a general-purpose drive condition for making it possible to reliably print even with an ink cartridge, compatibility of which cannot be confirmed; and

a determination section which compares ink information read from the storage means of an ink cartridge with the normal setup range data, and executes printing using the optimum drive condition if the ink information is within the normal setup range, and executes printing using the general-purpose drive condition if the ink information is out of the normal setup range.

7. (original): The ink jet recording apparatus as claimed in claim 6, wherein the general-purpose drive condition is set such that pressure for ejecting an ink droplet from the recording head is set larger than the optimum drive condition and that the record paper feed speed is set lower than the optimum drive condition.

8. (original): The ink jet recording apparatus as claimed in claim 6, wherein a plurality of the general-purpose drive conditions are provided so that reliable printing can be executed in

association with the number or ratio of incompatible pieces of the attention ink information read from the storage element with respect to the normal setup range data.

9. (previously presented): An ink jet recording apparatus comprising an ink jet recording head for receiving supply of ink from an ink cartridge provided with storage means storing data for determining compatibility to a recording apparatus, and control means for determining compatibility of ink based on the data in the storage means and executing print operation, wherein

when the recording head is to be filled with ink after an ink cartridge is mounted, the control means determines compatibility of the ink cartridge based on the data from the storage means, and outputs data used as a guide for determining a compatible ink cartridge if it is determined that the ink cartridge is incompatible,

wherein the data used as a guide is at least one of (1) displayed on an operation panel of the ink jet recording apparatus and (2) outputted to a display of a host computer.

10. (original): The ink jet recording apparatus as claimed in claim 9, wherein the compatibility is compatibility to the recording apparatus.

11. (previously presented): An ink jet recording apparatus comprising an ink jet recording head for receiving supply of ink from an ink cartridge provided with storage means storing data for determining compatibility to a recording apparatus, and control means for

21
und
determining compatibility of ink based on the data in the storage means and executing print operation, wherein

if the ink cartridge is determined as being incompatible, the control means outputs data used as a guide for determining a compatible ink cartridge,

wherein the data used as a guide is at least one of (1) displayed on an operational panel of the ink jet recording apparatus and (2) outputted to a display of a host computer.

12. (original): The ink jet recording apparatus as claimed in claim 11, further comprising means for determining a record medium loaded to the recording apparatus.

13. (original): The ink jet recording apparatus as claimed in claim 11 or 12, wherein the compatibility is compatibility to the recording apparatus and record medium.

14. (previously presented): The ink jet recording apparatus as claimed in claim 11, wherein the control means determines the compatibility of the mounted ink cartridge based on the data from the storage means when the mounted ink cartridge is to be replaced, and the control means outputs data for specifying that the mounted ink cartridge is compatible.

15. (currently amended): A method of determining compatibility of ink based on data stored in storage means of an ink cartridge for supplying ink to a recording head of an ink jet recording apparatus, the method comprising:

generating a caution if compatibility to an ink cartridge cannot be confirmed when the ink cartridge is mounted; and

always awaiting input of an instruction by a user before executing a subsequent printing operation, after said caution is generated.

16. (original): A method of controlling an ink jet recording apparatus comprising an ink jet recording head for receiving supply of ink from an ink cartridge provided with storage means storing data, comprising the steps of:

reading data from the storage means of the ink cartridge to determine compatibility of the ink cartridge when the ink cartridge is mounted to the recording apparatus;

controlling the ink jet recording head based on the data in the storage means of the ink cartridge if the ink cartridge is compatible; and

executing print operation based on data stored in default data storage means if the ink cartridge is incompatible.

17. (previously presented): A method of controlling an ink jet recording apparatus comprising an ink jet recording head for receiving supply of ink from an ink cartridge provided with storage means storing data for determining compatibility to a recording apparatus, the method comprising:

comparing ink information read from the storage means with normal setup range data;

executing print operation using optimum drive condition if the ink information is within the normal setup range; and

C1
last

executing print operation using general-purpose drive condition if the ink information contains information out of the normal setup range.

18. (previously presented): A method of controlling an ink jet recording apparatus comprising an ink jet recording head for receiving supply of ink from an ink cartridge provided with storage means storing data for determining compatibility to a recording apparatus, the method comprising:

determining compatibility of the ink cartridge based on the data from the storage means when the recording head is to be filled with ink after the ink cartridge is mounted; and

outputting data used as a guide for determining a compatible ink cartridge if the ink cartridge is incompatible;

wherein the data used as a guide is at least one of (1) displayed on an operation panel of the ink jet recording apparatus and (2) outputted to a display of a host computer.

19. (previously presented): A method of assisting a user to determine a compatible cartridge, the method comprising the steps of:

checking data of a first ink cartridge to determine compatibility of the first ink cartridge;

outputting data used as a guide for determining a compatible, second ink cartridge if compatibility of the first ink cartridge cannot be determined;

wherein the data used as a guide is at least one of (1) displayed on a display of a host computer and (2) displayed on a display of a recording apparatus.

C1
Unit

20. (previously presented): The ink jet recording apparatus of claim 4, wherein the default data includes data relating to a print medium feeding speed.

21. (previously presented): The ink jet recording apparatus as claimed in claim 9, wherein the user guide data is displayed when an ink cartridge is newly mounted and before the ink jet recording head is filled with ink.

22. (previously presented): The ink jet recording apparatus as claimed in claim 9, wherein the user guide data includes contact addresses and telephone numbers of dealers of compatible ink cartridges.

23. (previously presented): The ink jet recording apparatus as claimed in claim 9, wherein the user guide data is displayed both on the operation panel of the ink jet recording apparatus and the display of the host computer.

24. (previously presented): The ink jet recording apparatus as claimed in claim 11, wherein the user guide data is displayed when an ink cartridge is newly mounted and before the ink jet recording head is filled with ink.

25. (previously presented): The ink jet recording apparatus as claimed in claim 11, wherein the user guide data includes contact addresses and telephone numbers of dealers of compatible ink cartridges.

26. (previously presented): The ink jet recording apparatus as claimed in claim 11,
wherein the user guide data is displayed both on the operation panel of the ink jet recording
apparatus and the display of the host computer.

27. (previously presented): The method of controlling an ink jet recording apparatus of
claim 16, wherein the default storage means includes data relating to a print medium feeding
speed.

28. (previously presented): The method of controlling an ink jet recording apparatus of
claim 18, wherein the user guide data displayed occurs when an ink cartridge is newly mounted
and before the ink jet recording head is filled with ink.

29. (previously presented): The method of controlling an ink jet recording apparatus of
claim 18, wherein the user guide data includes contact addresses and telephone numbers of
dealers of compatible ink cartridges.

30. (previously presented): The method of controlling an ink jet recording apparatus of
claim 18, wherein the user guide data is displayed both on the operation panel of the ink jet
recording apparatus and the display of the host computer.

CS
ant
31. (previously presented): The method of assisting a user to determine a compatible cartridge of claim 19, wherein the user guide data displayed occurs when an ink cartridge is newly mounted and before an ink jet recording head is filled with ink.

32. (previously presented): The method of assisting a user to determine a compatible cartridge of claim 19, wherein the user guide data includes contact addresses and telephone numbers of dealers of compatible ink cartridges.

33. (previously presented): The method of assisting a user to determine a compatible cartridge of claim 19, wherein the user guide data is displayed both on the display of the recording apparatus and the display of the host computer.

34. (new): An ink jet recording apparatus comprising an ink jet recording head for receiving supply of ink from an ink cartridge provided with storage means storing data for determining compatibility of a recording apparatus, and control means for determining compatibility of ink based on the data in the storage means and executing print operation, wherein

if compatibility to an ink cartridge cannot be confirmed when the ink cartridge is mounted, the recording apparatus generates a caution and always awaits input of an instruction by a user.
